

## 2018 SDHB (Otago/Southland) Hospital Antibigram: Gram Negative Bacteria

For empiric treatment guidelines, see the Southern DHB empiric treatment guidelines on the MicroGuide App (available from the App Store and Google Play) or on the SDHB Intranet, Applications -> District -> Adult Antibiotic Guidelines

**Shaded** antibiotics are **restricted** in the Pharmac Hospital Medicines List (HML). These restrictions may be either:

(a) **Indication restrictions** – can only be used for the indication specified in the HML, AND/OR

(b) **Prescriber restrictions** – must be recommended by the specialist designated in the HML, OR be prescribed according to an approved hospital protocol e.g. MicroGuide (SDHB)

For further details on restrictions search the online HML: <https://www.pharmac.govt.nz/tools-resources/pharmaceutical-schedule/section-h/>

Gram negative bacteria (% sensitive)	Number tested	Amoxicillin	Amoxicillin/Clavulanate	Amoxicillin/Clavulanate (Cystitis)	Piperacillin/Tazobactam**	Cefalexin (cystitis)	Cefuroxime parenteral	Ceftriaxone	Ceftazidime	Cefepime	Meropenem	Gentamicin	Tobramycin	Nitrofurantoin (cystitis)	Ciprofloxacin	Cotrimoxazole	Trimethoprim (cystitis)	Fosfomycin (cystitis) **	Pivmecillinam (cystitis) **	Tetracycline
<i>E. coli</i> (all)	2761	53%	73%	88%	97%	92%	93%	94%			100%	96%		99%	89%	77%	76%	99%		
<i>E. coli</i> ESBL * (all sites)	346	0%		73%		1%		1%			100%	63%			30%	27%				
<i>E. coli</i> ESBL * (urine)	294	0%	46%	73%		1%					100%	65%		97%	32%	28%	26%	99%	92%	
<i>Enterobacter</i> spp.	185	R	R	R	70%	R	R	70%			100%	99%			97%	94%	97%			
<i>Klebsiella</i> spp.	405	R	87%	91%	90%	92%		94%			100%	97%			92%	92%	87%			
<i>Citrobacter</i> spp.*	117	R	42%	44%	91%	47%		85%			100%	97%			98%	94%	90%			
<i>Proteus mirabilis</i>	175	91%	98%	100%	100%	93%		96%			100%	86%			98%	93%	83%			
<i>Morganella morganii</i> *	81	R	R	R	100%	R		99%			100%	97%			92%	89%	70%			
<i>P.aeruginosa</i>	525				96%				90%		82%		94%		78%					
<i>Serratia</i> spp. *	119	R	7%	20%	100%			86%			99%	100%			87%	92%	76%			
<i>Salmonella</i> spp.*	154	92%						99%							86%	98%				
<i>Acinetobacter</i> spp. *	100										92%	93%	97%		94%	93%				
<i>Haemophilus influenzae</i>	307	68%	86%					92%							100%	71%				99%

**Notes:** R = intrinsic resistance. Many *Enterobacteriaceae* (other than *E.coli*) become resistant to cephalosporins if monotherapy with cephalosporins is used.

"Cystitis" = uncomplicated urinary tract infections.

\* Community isolates included because of small numbers of hospital isolates. Testing performed using EUCAST interpretive standards

\*\* Smaller number of isolates tested

## 2018 Otago/Southland SDHB Hospital Antibigram: Gram Positive Bacteria

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(a) **Indication restrictions** – can only be used for the indication specified in the HML

AND/OR

(b) **Prescriber restrictions** – must be recommended by the specialist designated in the HML, OR are prescribed according to an approved hospital protocol e.g. Microguide (SDHB)

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Gram positive bacteria (% sensitive)	Number tested	Amoxicillin	Penicillin G (sensitive)	Penicillin G (Intermediate)	Flucloxacillin	Ceftriaxone	Erythromycin	Clindamycin	Gentamicin	Nitrofurantoin (cystitis)	Trimethoprim (cystitis)	Cotrimoxazole	Ciprofloxacin	Norfloxacin (cystitis)	Fusidic acid	Linezolid**	Rifampicin	Tetracycline/ Doxycycline	Vancomycin
<i>Staphylococcus aureus</i>	2081		9%		89%		86%	87%	97%			97%	96%		88%	100%	99%	96%	100%
<i>S. aureus</i> (MRSA)	205		0%		0%		67%	70%	90%			89%	86%		81%	100%	99%	90%	100%
<i>S. lugdunensis</i> *	157		55%		100%		97%	98%	98%			99%	100%		96%	100%		97%	
<i>S. saprophyticus</i> *	390									100%	93%								
<i>S. pneumoniae</i> *	305		77%	17%		97%	74%	82%				73%				97%		76%	100%
<i>Enterococcus spp</i>	444	87%								99%				85%		100%			99%
<i>E. faecalis</i> *	335	98%								99%				91%		100%			99%
<i>E. faecium</i> *	65	17%														98%			94%

### Notes:

Ciprofloxacin or rifampicin should never be used as monotherapy for staphylococcal infections as resistance readily emerges.

Most erythromycin R Staphylococci will have inducible clindamycin R.

Note that 6% of *S. pneumoniae* are R to penicillin. High doses of a penicillin or cephalosporin may still be useful for infections other than meningitis (see MIC on laboratory report). For meningitis, consult the SDHB MicroGuide.

Flucloxacillin S Staphylococci are also S to 1<sup>st</sup> generation cephalosporins (eg cefazolin) and amoxicillin/clavulanate.

\* Includes community isolates because of small numbers of hospital isolates.

\*\* Small numbers tested (usually <50)